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Prof. Roger D. Hersch
EPFL - DI/LSP - INF Ecublens
CH-1015 Lausanne,
SWITZERLAND

EXAMINER
ROSARIO, DENNIS

ART UNIT	PAPER NUMBER
2624	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/902,227

Applicant(s)

HERSCH ET AL.

Examiner

Dennis Rosario

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7,10,13,24-28 and 34-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7,13,24-28 and 34-38 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment was received on 1/11/2007. Claims 1,3-5,7,10,13,24-28 and 34-38 are pending.

Claim Objections

2. Claims 1 and 24 are objected to because of the following informalities:

Claim 1, line 17: "the original" has no antecedent basis and ought to be amended to "an original".

Claim 1, line 20: "the microstructure level" has no antecedent basis and ought to be amended to "a microstructure level".

Claim 1, line 15: "the set" has no antecedent basis and ought to be amended to "a set".

Claim 1, line 15: "the microstructure" has no antecedent basis. Could "the microstructure" correspond to:

"an original microstructure space" in claim 1, line 6,7;

"a transformed microstructure space" in claim 1, line 7;

"said embedded microstructure" in claim 1, line 8?

Based on claims 34 and 36, the examiner will interpret "the microstructure" to correspond with "said embedded microstructure". Please clarify.

Claim 24, lines 6,7 "within said original microstructure space" has no antecedent basis and ought to be amended to "within an original microstructure space".

Claim 24, line 9: "the set" has no antecedent basis and ought to be amended to "a set".

Claim 24, line 9 "the microstructure" has no antecedent basis: see claim objection to Claim 1, line 15.

Claim 24, line 11: "the original" has no antecedent basis and ought to be amended to "an original".

Claim 24, line 14: "the microstructure level" has no antecedent basis and ought to be amended to "a microstructure level".

Claim 34, line 4: "the sequence of image instances" has no antecedent basis and ought to be amended to "a sequence of image instances".

Claim 34, lines 6,7: "over the succession of displayed target image instances" has no antecedent basis and ought to be amended to "over a succession of displayed target image instances".

Claim 34, line 8: "the set" has no antecedent basis and ought to be amended to "a set".

Claim 36, line 8: "the set" has no antecedent basis and ought to be amended to "a set".

Appropriate correction is required.

Claim Rejections - 35 USC § 101

Due to the amendment, the rejection of claims 1, 24, 34 and 36 under 35 USC 101 is withdrawn.

Claim Rejections - 35 USC § 112

3. Due to the amendment, the rejection under 35 USC 112 of claims 13, 37 and 38 is withdrawn.

Response to Arguments

4. In response to applicant's argument on page 3, Arg. 1.1, that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "...2D image that is rendered as in step (c)...") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim 1 step c) is interpreted as rendering said succession of target image instances from a two-dimensional original image.

5. Applicant's arguments on page 3, Arg. 1.2, filed 1/11/2007 have been fully considered but they are not persuasive and states:

"there is no reference to an animated transformation"

The examiner respectfully disagrees since fig. 3, "Transform (rotate...)" corresponds to a transform that performs rotation of an "object" in col. 27, line 57 which is interpreted the same as the claimed animated transformation.

6. Applicant's arguments on page 3, Arg. 1.3, filed 1/11/2007 have been fully considered but they are not persuasive and states:

"real-time constraints [time critical tasks]...has nothing in common with a time-dependent geometric transformation."

The examiner respectfully disagrees since the time critical tasks as shown in fig. 5, TIME SLOTS 1-5 corresponds to a time allotted for a processor such as CPU 511 to perform a certain task such as said transform of fig. 3 that is interpreted as geometric since a rotation of an object requires geometric properties such as perspective (fig. 14) and the transform is time dependent because the transform is interpreted to complete the transform within an allotted time slot so that during the next time slot another processor fig. 5, num 553 can properly apply texture to the rotated object and to apply texture to an object that is not completely transformed can result in undesirable results.

7. In response to applicant's argument on page 3, Arg. 1.4, that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "...mapping between the 2D target image...") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification,

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limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

8. In response to applicant's argument on page 3, Arg. 1.5, that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "...rendering a 2D image...") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9. Applicant's arguments on page 4, Arg. 1.6, filed 1/11/2007 have been fully considered but they are not persuasive and states:

"time slots have nothing in common with a microstructure evolving over time"

The examiner respectfully disagrees for the same reasons as paragraph 6, above. Note that the microstructure as claimed in claim 1, lines 15,16 "represents at least one visual motive element selected from the set of...symbol." The claim does not state what the microstructure **is (emphasis added)** only what the microstructure represents which can be broadly interpreted as anything in an image that represents the claimed symbol such as one of the arms or color or texture of the star of fig. 2D, num. 280 that are all features or microstructures that represent the star that corresponds to the claimed symbol. Upon further review of the specification on page 6,2nd to last paragraph the "microstructure is defined by a dither matrix whose succession of dither threshold levels represent the desired visual motives (FIG. 1B)." The examiner believes that there is a distinction of what the microstructure represents in the prior art and what the microstructure is based on the examiner's interpretation of microstructure that represents a symbol and the definition according to the specification of microstructure, respectively.

10. Applicant's arguments on page 4, Arg. 1.7, filed 1/11/2007 have been fully considered but they are not persuasive and states:

"The 'image dithering circuit...has nothing in common with out step of 'halftoning of said two dimensional image.'"

The examiner respectfully disagree since the image "dithering circuit" in col. 15, line 28 is interpreted to perform dithering (on the image of fig. 2D,num. 270) of said two dimensional original image (fig. 2D,num. 270 is of an original image as shown in fig. 2D,num. 280). Note that the word "of" is broadly interpreted as a point of origin such as an original image of fig. 2D,num. 280 that is further transformed to the surface of fig.2D, num. 210" where the transformed image as shown in fig. 2D,num. 270 is **of (emphasis added)** the original image.

11. Applicant's arguments on page 4,Arg. 1.8, filed 1/11/2007 have been fully considered but they are not persuasive and states:

"The symbol of a star in fig. 2D, no 270 is not a microstructure..."

The examiner respectfully disagrees for the same reasons as paragraph 9, above.

12. Applicant's arguments on page 4, Arg. 1.9, filed 1/11/2007 have been fully considered but they are not persuasive and states:

"...the star is not an element independent of the original image..."

The examiner respectfully disagrees since Grey, III et al. or Grey discloses that the star is an element independent of the original image since the star of fig. 2D,num. 280 is "depth-independent" in col. 25, line 38 relative the original image of fig. 2D,num. 210" that exhibit depth as shown by the land masses of fig. 2D,num. 210".

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13. In response to applicant's argument on page 5, Arg. 3.1 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "...a mask for rendering only part of the original image with an animated microstructure.") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

14. Applicant's arguments on page 5, Arg. 5.1, filed 1/11/2007 have been fully considered but they are not persuasive and states:

"Dither matrix...has nothing in common with a dither matrix embedding a microstructure"

The examiner respectfully disagrees since the dither matrix of Table XXIV in column 39 is used by fig. 1A,num. 150 or more specifically a more detailed view of fig. 1A,num. 150 is shown in fig. 1B,num. 150 wherein num. 156 or "module 156" in col. 38, line 27 uses the dither matrix for dithering in fig. 1A,num. 160 that includes a "dithering circuit" in col. 15, line 28 that performs an embedding operation "on a by-the-pixel basis" in col. 15, lines 31,32 of the microstructure or said star to produce a dithered image of the star.

15. Applicant's arguments, see page 5, Arg. 5.1, filed 1/11/2007, with respect to 102(b) have been fully considered and are persuasive. The rejection of claim 10 has been withdrawn.

16. Applicant's arguments on page 6, Arg. 36.2, filed 1/11/2007 have been fully considered but they are not persuasive and states:

"FIGS 1A and 1B...has nothing in common with a server computing system"

The examiner respectfully disagrees since the claimed server computing system is not clearly defined as a server computer that is distinct from a client computer known to one of ordinary skill in the art of computer networking. The claimed server computing system is a broad term that the term can be interpreted as a waiter using his/her brain as a computing system to serve food to clients or as with respect to fig. 1A, a MAC0 unit 120 as a server that "grants" in col. 16, line 61 requests of a data bus from other devices or clients within fig. 1A so that the clients can have access to the data bus.

17. In response to applicant's argument on page 6, Arg. 36.2, that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "...interacting with a client computer...") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification,

limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

18. In response to applicant's argument on page 6, Arg. 36.3, that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "...interacting with a client computing and display system...") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

19. Applicant's arguments on page 7, Arg. 36.4, filed 1/11/2007 have been fully considered but they are not persuasive and states:

"Texture data has also nothing in common with our microstructure since the texture is an intrinsic part of the global picture and not as in our invention, independent of the global image."

The examiner respectfully disagrees since Gray discloses texture data as shown in fig. 2D,num. 280 shares common features as the claimed microstructure such as being a star or symbol of said storm system which one of the criteria of the claimed microstructure and is "depth-independent" in col. 25, line 38 of said global image as shown in fig. 2D, num. 210". Note that fig. 2D,num. 270 is interpreted not to be depth-independent of the global image because 270 is "wrapped " in col. 25, line 30 to the surface of the global image.

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20. Applicant's arguments on page 7, Arg. 36.4, filed 1/11/2007 have been fully considered but they are not persuasive and states:

“...the texture is not created by a halftoning operation...”

Regardless of whether the texture is created by a halftoning operation, claim 36, last line “halftoning operation” does not clearly claim what the halftoning operation creates.

Claim Rejections - 35 USC § 102

21. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

22. Claims 1,3-5,7,13,24-28,34,36 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Gray, III et al. (US Patent 5,856,829 A).

Regarding claim 34, Gray, III et al. discloses a computing system for electronically displaying a target image with an embedded microstructure (fig. 2D,num. 270) evolving over time, said computing system comprising:

a) a server computing system (see paragraph 16, above) for rendering said target image (or "later-to-be displayed" image in col. 19, line 30) from an original image (or "current display" image in col. 19, line 29) by synthesizing target image instances (or displaying an "animation" in col. 19, line 27) and comprising:

a1) a client computing system (see paragraph 16, above):

a11) receiving (via fig. 1A,num. 124) the sequence of image instances (or "animated images" in col. 15, line 59) from the server computing system and

a12) displaying said sequence (via fig. 1A,num. 185),

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b) where a time-dependent animation transformation (fig. 3 ,num. 410, label: "Transform (rotate, scale,distort, etc.)" corresponds to the claimed animation transformation wherein the Transform is interpreted as a "time-critical task" in col. 6, line 18 and shown in fig. 5 as TIME SLOTS which correspond to the claimed time-dependent or see paragraphs 5,6, and 9 above with respect to the claimed transformation) specifies how said embedded microstructure (fig. 2D,num. 270) spatially evolves (or "wrapped" in col. 25, line 30) over the succession of displayed target image instances (corresponding to said "animated images" in col. 15, line 59 wherein one of the animated images is as shown in fig. 2D, num. 210"),

c) where said embedded microstructure (as shown in fig. 2D,num. 270) represents at least one visual motive element selected from the set of:

- c1) text,
- c2) logo,
- c3) symbol (as shown in fig. 2D,num. 270 is a symbol of a star)
and
- c4) ornament,

d) where visual motive elements represented by said embedded microstructure are independent of the original image content (since a star with a face is not inherent or does not naturally belong on the surface of a planet or see paragraph 19, above) and

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e) where synthesizing the target image instances from said original image comprises:

e1) a halftoning operation (via a "dithering circuit" in col. 15, line 30).

Claim 36 is rejected the same as claim 34. Thus, argument similar to that presented above for claim 34 is equally applicable to claims 36 except for the additional limitations of:

a) original color image (or "native...data" in col. 18, lines 17,18), microstructure data (or "texturing data" in col. 18, lines 17,18) and microstructure evolution parameters ("binary-coded data" in col. 18, line 53 that is used for "real-time animation" in col. 18, lines 55,56) and

b) where the client computing and display system renders said target image from said original color image by synthesizing target image instances with said embedded microstructure (as shown in fig. 2D) on the fly (or in "real-time" in col. 15, line 56).

Regarding claim 1, Gray, III et al. discloses a method for electronically displaying a target image with an animated microstructure, where the target image is made of a succession of target image instances which differ from each other by an embedded microstructure which evolves over time, the method comprising the steps of:

a) defining a two-dimensional original image (corresponding to a "current display" in col. 19, line 29 that is "see[n as a]...2-dimensional image" in col. 22, line 19);

b) defining a time-dependent geometric animation transformation (fig. 3, num. 410, label: "Transform (rotate, scale, distort, etc.)" corresponds to the claimed animation transformation wherein the Transform is interpreted as a "time-critical task" in col. 6, line 18 and shown in fig. 5 as TIME SLOTS which correspond to the claimed time-dependent or see paragraphs 5,6, and 9 above with respect to the claimed transformation) between an original microstructure space (fig. 2D, num. 285) and a transformed microstructure space (as shown in fig. 2D, num. 270 that has been rotated relative to the image of fig. 2D, num. 280),

b1) said transformation

b12) specifying how said embedded microstructure spatially evolves (or "wrapped" in col. 25, line 30) in successively displayed target image instances (or "later-to-be displayed" in col. 19, line 30 images); and

c) rendering from said two-dimensional original image said succession of target image instances (or displaying "animated images" in col. 15, line 60 using fig. 1A, num. 180) comprising:

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- c1) said embedded microstructure (fig. 2D,num. 270) evolving (via fig. 3 ,num. 410, label: "Transform (rotate, scale,distort, etc.)") over time (as shown in fig. 5 as TIME SLOTS that corresponds the time allotted for the CPU 511 of fig. 5 to perform CPU TASKS of fig. 3 such as said rotate or see paragraphs 5,6, and 9 above with respect to the claimed transformation),
- d) where said rendering step comprises:
 - d1) a mapping (as shown in fig. 2D,num. 275) of positions between target image instances (one of which is shown in fig. 2D, num. 210") and positions within said original microstructure space (fig. 2D,num. 285) according to said time-dependent geometric animation transformation (as indicated by said rotate transform of the star of fig. 2D,num. 280 relative to fig. 2D,num. 270) and
 - d2) a halftoning (via a "dithering circuit" in col. 15, line 30) of said two dimensional original image (this limitation is interpreted as halftoning or dithering all images of said animation including the original image);
- e) where the microstructure represents at least one visual motive element selected from the set of:
 - e1) text,
 - e2) logo,
 - e3) symbol (as shown in fig. 2D,num. 270 is a symbol of a star or see paragraph 11, above) and

e4) ornament;

f) where visual motive elements represented by said microstructure are independent of the original image content (since a star with a face is not inherent or does not naturally belong on the surface of a planet or see paragraph 19, above);

g) where the target image instances (one of which is shown in fig. 2D,num. 210") represent simultaneously (via the image of fig. 2D,num. 210"):

g1) at a global level (fig. 2D, num. 210") the original two-dimensional image (since the animation is a rotation of an "object" in col. 19, line 46 is a representation of the original two-dimensional image as a rotated original two-dimensional image) and

g2) at the microstructure level (fig. 2D, num. 270) the independent visual motive elements (since fig. 2D,num. 270 is a representation of fig. 2D, num. 280 with depth since 280 includes "depth-independent" in col. 25, line 38 information or is without depth) represented by said microstructure (fig. 2D,num. 280).

Regarding claim 3, Gray, III et al. discloses the method of claim 1, where only a part of the original image is rendered with an animated microstructure (as shown in fig. 2D), that part being specified by an additional mask definition step (via an "opaque pattern" in col. 23, line 40).

Regarding claim 4, Gray, III et al. discloses the method of claim 1, where an additional step enables to specify (via "image-defining parameters" in col. 7, line 1) a

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set of basic colors (or "color... values" in col. 7, line 4) for rendering said target image instances.

Regarding claim 5, Gray, III et al. discloses the method of claim 4, where said two-dimensional original image is halftoned by dithering at least one of the basic colors with a dither matrix (or "dither matrix" in column 39, line 18) embedding the microstructure.

Claims 7 is rejected the same as claims 4 and 5. Thus, argument similar to that presented above for claims 4 and 5 is equally applicable to claim 7.

Regarding claim 13, Gray, III et al. discloses the method of claim 1, where the embedded microstructure is made more flexible (via a grid as shown in fig. 2B) by an additional warping transformation (any one of fig. 3, num. 410, label "(rotate, scale, distort, etc.)") mapping between a target image space containing the target image and an animated dither matrix space.

Regarding claim 24, Gray, III et al. discloses a target image (fig. 1A, num. 185). Note that the remaining limitations are not given any patentable weight since claim 24 is a product-by-process claim. See MPEP 2113.

Claim 37 is rejected the same as claim 5. Thus, argument similar to that presented above for claim 5 is equally applicable to claim 37.

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gray, III et al. (US Patent 5,856,829 A) in view of Shimomura et al. (US Patent 6,526,580 B2).

Regarding claim 35, Gray, III et al. does not disclose claim 35, but teaches that the invention can be used with a "cable headend, a wireless broadcast receiver, a telephone modem, etc." in col. 18, lines 5,6. Thus, Gray, III et al. suggests to one of ordinary skill in the art that shows at least a wireless broadcast receiver that can be used with the invention:

Shimomura et al. shows a wire broadcast receiver in fig. 1 as suggested by Gray, III et al. and claim 35:

a) where a server computing system is a Web server (fig. 1,num. 150) and where the sequence of image instances (one of which is shown in the video screen of fig. 8) is displayed by a client computing system with a Web page (fig. 8).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Gray, III et al.'s teaching of the wireless broadcast receiver with Shimomura et al.'s teaching of fig. 1 is an effective method of distributing data to a plurality of devices.

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25. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gray, III et al. (US Patent 5,856,829 A) in view of Nakamura et al. (US Patent 6,603,576 B1).

Regarding claim 38, Gray, III et al. discloses the computing system of claim 36, where the microstructure evolution parameters also comprise:

a) a warping transformation (the results of which are shown in fig. 9,numerals 912 and 914 relative to fig. 9,num. 905) .

b) where the clients and display system also receives (via a "download" in col. 18, line 17) from the server (or "a wireless broadcast receiver" in col. 18, lines 4,5) as input data ("texturing data" in col. 18, lines 17,18).

Gray, III et al. does not teach the remaining limitation, but does teach that the texturing data or "texture information" in col. 21, line 34 includes a "by-the-pixel dither bypass" in col. 21, line 37 function which is interpreted as a function that performs a dithering operation or not. Since Gray, III et al. does "not show" in col. 15, line 28 a dithering circuit, Gray, III et al. suggests to one of ordinary skill in the art to find a teaching that shows a dithering circuit.

Nakamura et al. shows a dithering circuit in fig. 1, num. 18 and in fig. 7 as suggested by Gray, III et al. and the remaining limitations of:

a) a mask (fig. 3C) whose values (fig. 3C: Strength = 0.5) represent relative weights of the original color image (fig. 2, label: BL) and of image instances (fig. 3A-3D) obtained (via the input of fig. 1, num. 18) by said halftoning operation (or "supplied" in col. 5, line 3 is interpreted as a halftoning operation since supplying patterns for dithering is a reasonable interpretation of a halftoning operation), the mask defining the position (as indicated by the grid of fig. 3B) and visibility (as shown in fig. 7, num. 34) of the microstructure (or squares of fig. 3B) within the target image (fig. 7, num. 34).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Gray, III et al.'s teaching of texture information that includes an operation of whether to dither on a pixel basis with Nakamura et al.'s teaching of dithering on a pixel basis that includes strength values that indicate whether or not the original image should be dithered, because Nakamura et al.'s teaching provides an "improved digital watermarking" in col. 1, line 67 thus protecting an image from piracy.

Allowable Subject Matter

26. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

27. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 10, applicants properly point out, stating on page 5 , Arg. 10.1, "Gray III does not deal with blending of shapes."

Hence, and in view of applicants arguments, amendment and in combination with all of the other elements of the claim, claim 10 is allowable over the closest prior art of Gray, III et al. (US Patent 5,856,829).

Conclusion

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Curry (US Patent 6,092,732) is pertinent as teaching a method of blending shapes as shown in fig. 9 relative to fig. 8. However, Curry does not apply the shapes blending for animation or video.

McGrew (US Patent 5,396,559) is pertinent as teaching a method of using a " 'pattern of dots' " in col. 10, line 34 to create "every possible pattern" in col. 10, lines 40,41 such as "very small symbols" in col. 10, lines 37,38.

Lippel (US Patent 5,148,273) is pertinent as teaching within a video environment a method of using a frame pattern generator that uses a pixel clock and a transformation of a dither matrix that creates "Micropatterns" in col. 2, line 63.

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Rosario whose telephone number is (571) 272-7397. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DR

Dennis Rosario
Unit 2624



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600